

Chief Industrial Magistrate's Court of New South Wales

**Occupational Health and Safety Act 1983 s 16(1) [2000]
NSWCIMC 13 (14 April 2000)**

CHIEF INDUSTRIAL MAGISTRATE'S COURT

Coram: G A MILLER

Chief Industrial Magistrate

Dated: 14 APRIL 2000

Matter No. 98/2356

Inspector Victor Page

v

4 in 1 Fitness Pty Ltd

(ACN 075 753 472)

Occupational Health and Safety Act 1983 s 16(1)

REASONS FOR DECISION

It is alleged that the defendant 4 in 1 Fitness Pty Ltd (ACN 075 753 4720) has breached s 16(1) of the Occupational Health and Safety Act 1983 (the Act) on 13 November 1996 at Wyoming in the State of New South Wales in that being an employer it failed to ensure that persons not in its employment were not exposed to their risk to their health and safety arising from the conduct of its undertaking while they were at its place of work.

In particular, it was alleged the defendant failed:

The defendant failed to adequately train and instruct students of Gosford High School and in particular Jade Luisa Frances in the safe operation of climbing equipment being utilised by students of Gosford High School and in particular Jade Luisa Frances was correctly attached and secured by the students prior to commencing climbing; the defendant failed to adequately supervise students of Gosford High School and in particular Jade Luisa Frances whilst she was using climbing equipment at the said climbing centre; the defendant failed to have in place a safe system of climbing and in particular it did not have in place a system that required the climber and belayer to check each other's harnesses and all Karabiners before climbing; the defendant failed to adequately warn the students of Gosford High School and in particular Jade Luisa Frances of the danger of dropping the D-clip which could fracture.

At the hearing Mr Sibtain of Counsel appearing for the defendant confirmed a plea of guilty to the charge. Mr Skinner of Counsel appearing for the informant, a safety inspector with the WorkCover Authority of New South Wales (WCA) sought not only a penalty for a breach of s 16 (1) of the Act but also an order under s 47A of the Act.

Section 47A provides -

47A (1) If a court convicts a person of an offence against this Act or the regulations in respect of a matter which appears to the court to be within the person's power to remedy, the court may, in addition to imposing a penalty provided with respect to the offence, order the person to take such steps as may be specified in the order for remedying that matter within the period specified in the order.

(2) A person must not, without reasonable excuse, failed to comply with an order under this section.

Maximum penalty: 1,000 penalty units in the case of a corporation and 250 penalty units in any other case.

(3) The period in which an order under this section must be complied with may be extended, or further extended, by order of the court but only if application for such an extension is made before the end of that period.

The prosecutor called Jade Frances the injured person; Phillip Toomer, an expert witness; Susan Floyed, a foundation member of (IRGOA). Called by the defendant was Christopher Milne, the president of the Australian Climbing Gyms Association

(ACGA) of which the defendant company was a member.

At the beginning at the hearing I cautioned the parties not to turn the proceedings into a general inquiry into safety within climbing gymnasiums and not to forget the subjective features of the charge before the Court. At the same time the Court conceded the necessity to hear evidence as to competing views regarding safety within the industry to make a further determination in regard to the s47A order sought by the prosecutor and for this specific purpose the evidence of Mr Toomer, Ms Floyed and Mr Milne was admitted.

This Court at the time of the breach was limited to a maximum penalty for a corporation of \$50,000 for a breach of s.15(1). In **Lawrenson Diecasting Pty Ltd v WorkCover Authority of New South Wales** 90 IR the Full Bench of the Industrial Relation Commission in Court Session held that when determining the penalty to impose on an organisation which has pleaded guilty to an offence under the Act, the objective seriousness of the offence is of primary importance. The subjective factors which mitigate the seriousness of the offence must be secondary to consideration of the nature and quality of the offence.

An Agreed Statement of Facts (attached) was tendered to the Court. This set out in general terms the facts and circumstances of the accident to Jade Frances and the defendant's failures. Evidence by the witness, Ms Frances elaborated the Statement of Facts.

Further material was forwarded to the Court by the prosecutor after the hearing, as a matter of procedural fairness that material has ignored by the Court.

The Court is aware from the evidence that the sport of indoor rock climbing is growing in popularity, many school children participate in it, as counsel for the defendant submitted the "industry" is still very young. There are competing umbrella organisations, there are divergent opinions as to appropriate techniques, and there is a culture of adapting into this school recreation, techniques that were developed for more skilled recreational climbers or for persons working in industrial contexts.

In the Agreed Statement of Facts the defendant admits failures under s 16(1) of OHAS Act. The concession made by the defendant, and the basis for the entry of the plea in respect of the particulars set forth in paragraphs 10 (a), 10(b) and 10(c) of the agreed Statement of Facts, was that the defendant failed to comply with the system advocated by ACGA, in that it failed to have in place a system whereby climbers and belayers were obliged to cross check each other's equipment before commencing a climb. In the agreed Statement of Facts, in paragraph 8, the evidence is that the defendant, after the accident, changed its system to include in this requirement.

Counsel for the defendant stated in his address that it is suggested that what happened was a "roll-out" of the rope from the karabiner but equally Ms Frances could have connected incorrectly. However, the evidence suggests that she was connected properly.

The evidence established that is by the use of the karabiner and with a quarter turn back of the locking screw, that this was not a 'proper' connection, to ensure safety as required by s 16(1) of the OHAS Act. The evidence of Mr Toomer is relied upon in this context.

The Court accepts upon all the evidence, in particular the "snapping sound" that Ms Frances heard (her evidence in chief and also para 6 of the Agreed Statement) and the evidence of Mr Toomer, that indeed a roll-out did occur. From Mr Toomer's report and the material there included the prosecutor submitted the possibility of this happening was something quite foreseeable by the defendant. To the contrary the defendant submitted it had no reason to expect that the system advocated by ACGA was anything but safe. As a member of ACGA the defendant relied upon the advice and training of that association.

The evidence given by Mr Milne, the president of the NSW chapter of ACGA was that his association advocated and taught its members to follow a system whereby:

- (a) a single karabiner is used as the connecting device;
- (b) the orientation of the karabiner is not an issue;
- (c) the locking sleeve on the karabiner should be turned back a quarter turn; and
- (d) an additional attachment method is not required.

"Clipping in" is a term used to describe the connection between a climber's harness and a loop in the end of a safety rope that is made by using a karabiner, normally a karabiner with some form of locking mechanism. This is the system advocated by ACGA.

IRGOA on the other hand advocates a "clip and tie method". "Clip and tie method" is a term used to describe the system where first a karabiner is used to connect a climber's harness to a preformed loop in the safety rope and then an additional connection is made between the

climbers' harness using the end of the safety rope and then an additional connection is made between the climber's harness by tying a knot around the manufacturer specified part of the harness using the end of the safety rope. A system which on the evidence before me is an inherently safer system in the circumstances than simply "clipping in".

As to the issue of training, instruction and supervision, the prosecution has submitted that the level of training and instruction given by the defendant was inadequate. Ms Frances replied in cross examination to a question that she indeed may have been instructed how to clip onto the belaying rope with the karabiner, albeit briefly,; *I was never shown how to attach the rope by anyone in the gym.* The evidence given by Ms Frances that she knew how to attach herself to the climbing rope accorded with the procedure advocated by ACGA. She said she had been so instructed by a fellow student.

The defendant's failure under the particulars set out in para 10(a) of the Agreed Statement are at a high level. Simply, Ms Frances should have received instructions from the defendant not from a fellow climber.

Prior to the date of the accident, Ms Frances had climbed on four separate occasions. The defendant submitted it cannot be said to have given inadequate instructions in circumstances where an customer has been observed to be cognisant of the correct procedures. The defendant conceded its system was inadequate by failing to include a requirement that climbers and belayers cross- checked each other's equipment..On the prosecution' evidence, the absence of cross- checking was not a cause of the accident. However, the duty under the Act is for the defendant to properly instruct its clients personally as to its safety systems.

The prosecution submitted that the evidence disclosed a grossly inadequate level of supervision by the defendant. The concession made by the defendant in respect of para. 10(c) of the agreed statement of facts concerned the failure of the defendant to ensure that participants were cross checking each others equipment.

The defendant was responsible for this supervision, not the school. Ms Frances stated that on that day of the accident although the Instructor Matthew Hunter was present his mobility was limited as he was on crutches and although he was present when she herself checked her gear he was behind her and did not partake in that check. No-one else checked her gear and there was no system in place for that to happen.. Ms Frances described how on the previous occasions when she spoke to instructors she was usually already on the wall. However, no evidence was led by the prosecutor that the instructors could not see whether Ms Frances was correctly attaching herself to the rope or that the instructors had not assessed her competency. However, the system in place as to supervision did not ensure that Ms Frances was correctly connected to the rope.

The prosecution submitted

This is not an offence calling for a penalty at the lower end of the scale as submitted by counsel for the defence. Factors against such an approach include.

(a) the prosecution has already exercised its discretion in proceeding summarily despite there being considerations in this case justifying proceeding in the Industrial Commission in Court Session;

(b) there were multiple breaches under s 16 and

(c) the objective seriousness of the offence - see *Lawrenson Diecasting Pty Ltd v WorkCover Authority* [1999] NSWIR Comm 343 (12 August 1999) and *Fletcher Construction Australia Ltd v WorkCover Authority of NSW* [1999] NSWIR Comm 362 (17 August 1999)

The defendant had in place a system of instruction, training and supervision and a system of climbing that met the standards of its association, an association that 75% of climbing gyms in New South Wales accept. The defendant by its plea accepts that it did not have the climber and belayer cross checking. **The case advanced by the prosecution was that the defendant adopted a system of connection that was unsafe. In many respects the defendant has blindly followed its associations guidelines rather than its meet its own obligations under the Act.**

It is essential that the employer's approach to ensure safety in the workplace should be a proactive one; employers should be on the offensive to search for, detect and eliminate, so far as in reasonable practicable, any possible areas of risk to safety, health and welfare which may exist or occur from time to time in the workplace: *WorkCover Authority of NSW v ATCO Controls Pty Limited* (Unreported, Hill J, 22 April 1998).

The defendant conducts a leisure activity which has inherent risks. With appropriate levels of safety training, correct equipment choices and appropriate supervision an indoor climbing gym can be a place where there are no serious injuries sustained by either staff or clients. There will always remain a risk of bumps, scratches and other abrasions. The correct choice of equipment includes using appropriate equipment in the correct way. **Every care must be taken, particularly where young people are involved.**

In my view the nature and quality of the offence fall in the medium range of matters coming before this Court.

Subjectively, the defendant has entered a plea of guilty albeit late. It is entitled to a discount. The defendant has no prior record in this jurisdiction.

The defendant's system was changed after the accident in that the defendant prepared a list known as the "Rock Climbing Check List" to which was added a measure that the climber and belayer are to check each others karabiners before climbing

The defendant is a small company, It employs some 4 permanent and 20 casual workers in 1996. It is involved in all leisure activities. It has an active involvement in local community affairs . It fully co-operated with the WorkCover Authority

The maximum penalty this Court could impose at the time of the breach was \$50,000. It is appropriate in all the circumstances that a conviction and fine of \$12,500 is imposed

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Section 47A Order.

The WorkCover Authority seeks an order under s 47A of the OHAS Act that the defendant:

(a) install appropriate padding to the floor beneath where its customers engage in climbing activities; and

(b) instruct and ensure that all person climbing on its premises attach themselves to belay ropes by both a locking karabiner and a double figure-of-eight knots.

The defendant makes no submission as to the adequacy of the standards which it followed and which were advocated by ACGA.

The defendant submitted as to the appropriateness of making an order under s47A, that an order under that section should only be made in circumstances where one is required. It submitted that in the present case, there is no evidence to suggest that the defendant will not, after consideration of the Court's reasons for judgment, take such steps as the Court may consider necessary to ensure the safety of its patrons. **The defendant added it is plain the prosecution's motive is to send a message to other gyms and to attack the standards advocated by ACGA, that the making of an order of this kind against the defendant is inappropriate.**

There is no doubting the seriousness of the accident to Ms Frances. This Act has as its primary objective accident prevention. An order under s47A is one of the tools provided under the Act to prevent accidents of a similar kind. The purpose of such an order is to eliminate or minimise a potential risk of injury recurring. In such circumstances it is difficult to refuse the making of such an order and particularly where the defendant has relied on "industry" practice.

Mr Toomer in the introduction of his report used the following quotation by Tom Krakaur from "After the fall" (Outside, P113, 1990 June) -

"The most that can be said with any certainty is that someone made a small , innocent mistake - or, more likely still, still, several people made a series of small, innocent mistakes. And climbing, for better or worse, has always been a game in which the penalty for even the smallest mistake is often considerably more than anyone wants to pay"

In regard to the first order the wall climbing area was situated in a converted squash centre in which the floor was made of concrete. A fall from a height onto a hard surface such as concrete will have serious consequences. The greater the height the more serious the consequences.

Obviously an impact absorbing surface will minimise and reduce those consequences. It is self evident that the provision of an impact absorbing surface tested in accordance with the Australian Standard will augment the safety of climbers, particularly school children in the defendant's and other gyms.

In regard to the second order sought. A climbing gym is designed to provide a simulated rock climbing environment. Most climbing gyms are indoors. Depending on the gym there may be one or two styles of roped climbing offered.

Top roped climbing is where the safety rope passes from the climber over some form of fitting attached to an anchor point at the top of the climbing surface and back down to the belay device attended by the belayer. The belay device may or not be connected to an anchor point in the floor. Usually the belayer will be connected to the belay device.

Lead climbing is where the climber has the rope connected to their harness. The rope then passes to the belay device and the belayer. At the start of the climb it is usual to "clip" the safety rope through a karabiner hanging from the fitting attached through the climbing surface to a secure point. These fittings are called "quickdraws". As the climber progresses up the wall the climber will clip onto other quickdraws.

The contrast between the two styles of roped climbing (top roped and lead) is shown by the difference between the type and distance of a fall. **With top roped climbing the climber should only be able to fall the distance equivalent to the slack in the rope plus the stretch in the rope. There is no reason that a climber should ever hit the ground with any significant force when climbing top roped.**

When lead climbing, the climber spends regular periods of time above their last anchor point. As a result it is possible for them to fall a distance equivalent to the distance they are above their last "clip", plus any slack plus the stretch in the rope. There is a very real risk of falling in such a way that a climber can hit the ground. Under normal circumstances, the closer they are to the ground the higher is the risk of hitting the ground.

Lead climbing is usually restricted to experienced climbers and is often restricted to those who provide all their own equipment (rope, harness etc). The majority of clients for an indoor climbing gym will climb top roped. **The defendant in this case used the top roped method.**

An indoor climbing gym is a place where people with an adequate level of fitness can be put into some safety equipment, be given a minimal amount of instruction about how to use the equipment and then go climbing. Because such a series of events is possible it means that there are certain things which must be done or accidents will occur.

The range of competence of the clients in an indoor climbing facility is likely to be large. At the top end will be competent and experienced active climbers who climb both in the outdoors on real rock and also indoors. These will grade to the members of a group of non rock climbing visitors on their first visit. These are typified by "birthday party groups". Somewhere between fall the regular groups of users such as school groups.

School groups are typically participating in indoor climbing as part of their school's sports programme. The teachers supervising are not usually required to have any competence in climbing but are rather required to ensure that the participants get to and from the activity and that the participants behave in a disciplined manner while at the facility. The indoor climbing gym facility is usually expected to provide both instruction and supervision.

All roped climbing requires that the participant will wear a harness. In all cases it is essential that both the climber and their belayer understand what is meant by a correctly fitted harness and that they ensure that the climber's harness is correctly fitted and correctly secured before every climb.

A karabiner is essentially a piece of metal bent or forged into a ring with a spring loaded openable side, known as a gate. The gate may or may not have some form of locking mechanism. A karabiner is designed by its manufacturer for a one or more functions. Not every karabiner is suitable for all functions.

The locking mechanisms of a karabiner are many and varied. Specific locking mechanisms are designed to achieve safety for the user in a variety of circumstances. The most common form of locking mechanism is a screw gate. A screw gate locking mechanism is achieved by the threaded sleeve that closes over the operable gate to prevent inadvertent opening. The screw gate locking mechanism usually threads from the hinge pin towards the open end of the gate.

The locking mechanism on a screw gate karabiner only works when the locking sleeve is in the correct position. When it is not in the correct position, the karabiner behaves as if there is no locking mechanism, simply the spring loaded gate.

Mr Toomer reported the correct orientation of the karabiner is essential. If the gate opening is "up" then the risk is significantly greater than if the gate opening is 'down'.

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* There are a number of ways that the locking sleeve on a screw gate karabiner can be in a position which makes the locking mechanism inoperative:

* The user did not adequately secure or check the locking mechanism prior to commencing climbing.

* The locking sleeve vibrated to a location where it did not provide a locking mechanism.

* The sleeve was moved to a location where it did not provide a locking mechanism by direct contact with the climbing surface.

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Once the locking mechanism is rendered inoperative the karabiner will only fail to support the weight of the climber if, at the moment when the load is taken by the loop in the end of the safety rope, the loop is oriented so that it is in contact with the outside of the gate. Under these circumstances the gate will be opened by the rope. The climber will then fall if there is not other means of attachment.

The risk of injury caused by the locking mechanism of a screw gate karabiner being inoperative is almost totally restricted to those circumstances where a single screw gate karabiner is used as the attachment between the climber's harness and the safety rope.

One means of totally removing the risk inherent when the locking mechanism of a screw gate karabiner has been rendered inoperative is to simply not use a single karabiner as the means of connection between the safety rope and the harness.

The attraction with "clipping in" for an indoor climbing gym operator are convenience and speed. The convenience arises for the fact that the initial "instruction" given to a participant only includes understanding what a karabiner is, how to lock it and how to check it. The speed arises from both the very short length of time taken to provide "instruction" and also the speed with which a participant can attach to or detach from a loop in the end of a safety rope at the beginning and end of each route.

Without exception, manufacturers of climbing harnesses and manufacturers of karabiners insist the "tying in" is the only accepted method of attachment when lead climbing. "Tying in" is the term used to describe the connection between a climber's harness formed by tying a knot around the manufacturer specified part of the harness using the end of the safety rope.

The only risk with "tying in" comes from the competence of the person tying and checking the knot. If the wrong knot is selected or if the correct knot is not properly tied the result can be fatal.

Mr Toomer reported the aversion to any form of "tying in" on the part of some Australian indoor climbing gym owners revolves around the perceived problems associated with teaching their clients to tie a knot and the time and number of staff it will take. They also introduce the supposed problems associated with checking a knot. Checking a knot is perhaps seen by some as requiring more skill and knowledge than checking that a harness is correctly fitted, a karabiner is securely locked and that a belay system is correctly assembled and used.

One of the problems inherent in "tying in" is that a knot becomes difficult to untie after it has been loaded. Repeated loading tends to increase that difficulty.

Mr Toomer and IRGOA advocate the "clip and tie" method."

"Clip and tie is the term used to describe the system where first a karabiner is used to connect a climber's harness to a preformed loop in the safety rope and then an additional connection is made between the climber's harness by tying a knot around the manufacturer specified part of the harness using the end of the safety rope. The rethreaded double figure of 8 knot is a very safe knot when tied correctly and is the recommended knot for "tying in". It is the only knot accepted at sanctioned climbing competitions.

The "clip and tie" method is not widely used outside Australia. The idea had currency with IRGOA's progenitor, the Australian Climbing Walls Industry Group (ACWIG) in 1996:

The concept of "Clip and tie" is rejected by the alternative organisation to IRGOA. ACGA specifically opposed any requirement to "tie-in" when climbing top roped in an indoor climbing gym supposedly on safety grounds. Mr Milne did not adequately explain those grounds.

Rather than "clip and tie" the method of "tying in" is promoted in most parts of the world. The method of "clipping in" is used in some areas of the UK but is prohibited in others. Most of Europe and the USA do not condone "clipping-in" and do promote "tying-in".

The issue of problems with karabiners is well canvassed in the Mr Toomer's report, the literature referred to and by Mr Toomer's practical demonstration to the Court.

There are several ways in which karabiner gates may come open accidentally. On the evidence before me the safe approach to adopt is the "clip and tie" method. Although the tie in is slower, demands student concentration and requires the climber to learn an additional skill it eliminates the greater potential for the climber to become disconnected from the safety rope. To justify a decision not to "clip and tie" but to simply "clip in" simply on the basis of convenience and less expense is unacceptable.

The Court heard evidence from Mr Toomer and Ms Floyed that the process of tying the knot is simple and easily mastered and that the process of teaching it in gymnasium conditions and enforcing its use is similarly simple and involves minimal cost and time.

Accordingly, in the circumstances I make the following orders pursuant to s47A of the Act:

The defendant is to -

(a) install appropriate padding to the floor beneath where its customers engage in climbing activities; and,

(b) instruct and ensure that all persons climbing on its premises attach themselves to belay ropes by both a locking karabiner and a double figure of eight knot.